

uniQema



A Personal Care product  
development guide

Creating your advantage

# FORMULATIONS

## A New Formulary Guide from A New Business

Welcome to the new Uniqema Personal Care Formulary. This edition of our formulary contains more than 50 product formulations featuring Uniqema products and other commonly available ingredients. They represent literally hundreds of years of experience in the development of high quality, innovative personal care products.

### About Us

On January 1, 1999 Uniqema was formed as a new business with the international network and accumulated experience of an established market leader.

This new business combines the talents and skills of several members of the ICI Group - ICI Surfactants, ICI Synthetic Lubricants, Mona Industries, Solaveil and Unichema International - and brings together the talents, skills and technologies used in well known brand names such as TWEEN®, ESTOL®, ARLACEL® and MONASIL®, to mention a few.

The Health & Personal Care business of Uniqema will focus on market sectors where we can add the most value including skin care, hair care, toiletries and decorative cosmetics. We offer specialized emulsion systems, traditional emulsifiers, mild specialty cleansers, conditioners, foamers, inorganic sunscreens, and emollients.

Uniqema works with ICI companies National Starch & Chemical and Quest International to provide the ultimate resource for creating your advantage within the Health and Personal Care sectors. In all that we do, we are *Building Bridges* between our platforms of technology and your market challenges.

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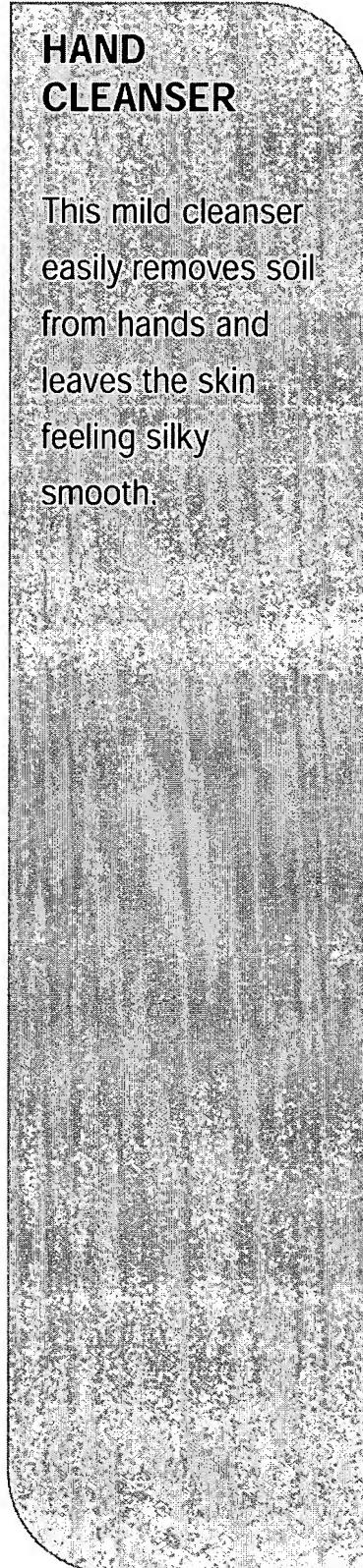
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<b>Ingredients</b>	<b>% by weight</b>	
Water	56.5	
<b>MONATERGE 1164</b>	40.0	S
<b>MONAMID 716</b>	3.0	K
<b>ESTOL 3750</b>	0.5	I
	100.0	N

## **Procedure**

Mix ingredients while warming to 65°C.  
Agitate until uniform. Cool and adjust pH  
to 6.5. Add color, fragrance and  
preservative. Package.

## **Typical Properties**

**Appearance** Pearlized viscous liquid

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## HAND CLEANER WITH PCMX

An effective liquid hand cleanser fortified with an OTC-approved, germ-killing antimicrobial. Helps to keep skin cleaner longer.

PHOSPHOLIPID PTC effectively maintains and conditions skin.

Ingredients	% by weight
<b>Part A</b>	
<b>MONAMID 716</b>	2.5
<b>MONATERGE 779</b>	10.0
Parachlorometaxylenol	0.2
<b>Part B</b>	
Water	78.3
Neodol 25-3A	8.0
<b>PHOSPHOLIPID PTC</b>	1.0
	100.0

### Procedure

Blend Part A. Make sure PCMX is dissolved, heat if necessary. Blend Part B into Part A. Adjust pH to 7.0. Add color, fragrance and preservative. Package.

### Typical Properties

**Appearance** Clear viscous liquid

# FORMULATIONS

## ANTIBACTERIAL HAND WASH

A premium liquid cleansing system that leaves a long lasting soft and smooth after-feel.

Ingredients	% by weight	
Water	44.3	S
Ammonium Lauryl Sulfate (28%)	23.0	K
Sodium Lauryl-2 Sulfate (26%)	21.5	I
<b>PROMIDIUM CO</b>	3.5	N
<b>MONATERIC LMAB</b>	3.0	C
<b>PHOSPHOLIPID CDM</b>	2.5	A
<b>PRICERINE® 9088</b>	1.0	R
Triclosan	0.2	E
<b>MONAMATE RMEA-40</b>	0.7	
Disodium EDTA	0.2	
Citric Acid	0.1	
	100.0	

### Procedure

With stirring, combine all ingredients except triclosan. Heat mixture to 55°C and add triclosan. Cool to 40°C. Add color and fragrance. Adjust the pH to 6 with citric acid.

### Formulation Properties

Appearance	Clear liquid
Solids (%)	18
Viscosity @ 25°C	5400 cP

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## CLEAR ANTIBACTERIAL HAND WASH

This waterless hand wash provides excellent cleansing and removal of dirt and germs. Apply to soiled hands, rub in and rinse or towel off.

Ingredients	% by weight
<b>Part A</b>	
Ethanol (95%)	63.0
Hydroxypropyl Cellulose	1.0
<b>Part B</b>	
Propylene Glycol	5.0
<b>PHOSPHOLIPID CDM</b>	3.0
<b>Part C</b>	
Water	28.0
100.0	

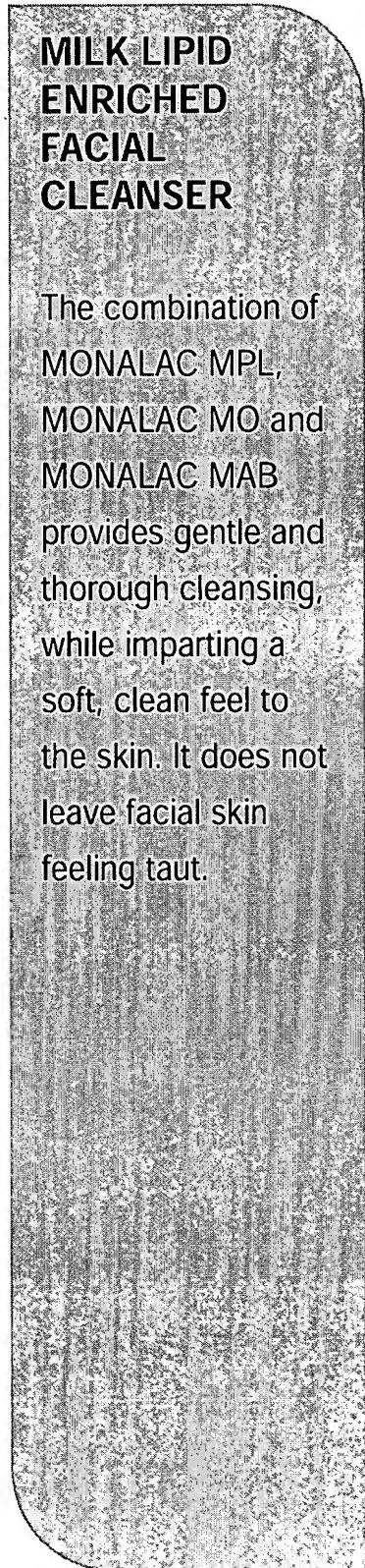
### Procedure

Blend hydroxypropyl cellulose and ethanol with high speed agitation. Separately, mix PHOSPHOLIPID CDM, propylene glycol and water. Add part A to part B mix until uniform. Add water, color and fragrance. Package.

### Typical Properties

<b>Appearance</b>	Clear colorless liquid
<b>pH</b>	6.0
<b>Viscosity @ 25°C</b>	1000 cP

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## MILK LIPID ENRICHED FACIAL CLEANSER

The combination of MONALAC MPL, MONALAC MO and MONALAC MAB provides gentle and thorough cleansing, while imparting a soft, clean feel to the skin. It does not leave facial skin feeling taut.

Ingredients	% by weight	
Water	55.0	S
Sodium Laureth-2 Sulfate (26%)	35.0	K
MONALAC MPL	2.0	I
MONALAC MO	2.0	N
Sodium Chloride	1.0	
MONALAC MAB	5.0	
	100.0	

### Procedure

Add in the order listed and adjust pH to 7.0. Add color, fragrance and preservative. Package.

### Typical Properties

**Appearance** Clear liquid

**Viscosity @ 25°C** 7,500 cP

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**CONDITIONING  
FACIAL  
CLEANSER  
WITH SALICYLIC  
ACID**

A treatment facial cleanser that will help to maintain a more youthful skin appearance and blemish-free complexion.

<b>Ingredients</b>	<b>% by weight</b>
Water	44.0
Sodium C14-16 Olefin Sulfonate (40%)	40.0
<b>MONALAC MAB</b>	10.0
<b>PHOSPHOLIPID GLA</b>	2.0
Sodium Chloride	2.0
Salicylic Acid	2.0
	100.0

**Procedure**

Add first three ingredients with mild heat. Sequentially, blend in remaining ingredients, then add color, fragrance and preservative. Package.

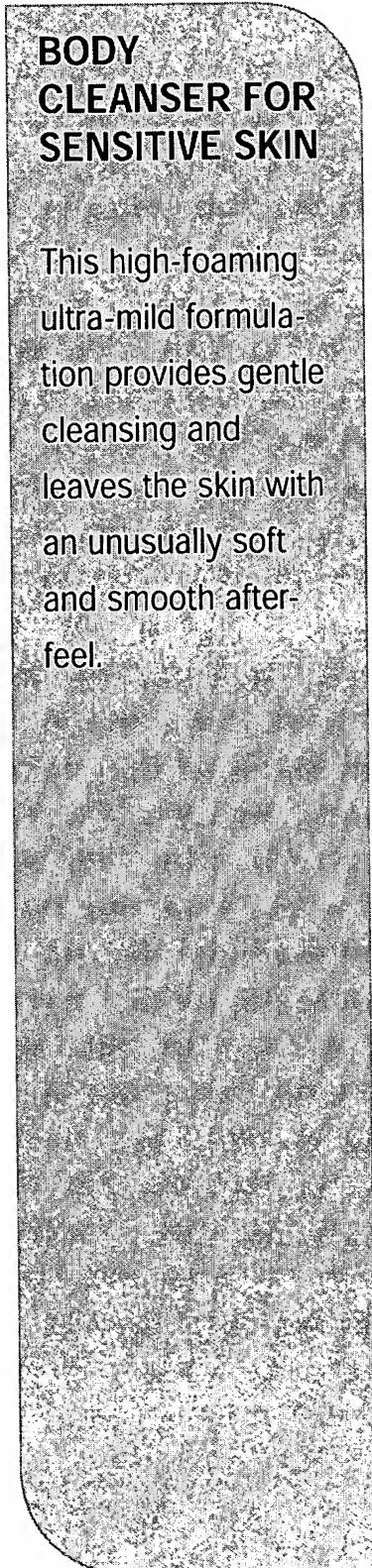
**Typical Properties**

**Appearance** Clear viscous liquid

**Viscosity @ 25°C** 13,500 cP

**pH** 4

# FORMULATIONS



Ingredients	% by weight	S	K	I	N
arlatone MAP 230K-40	32.2				
Sodium Laureth-2 Sulfate (26%)	49.5				
MONATERIC CLV	17.0				
ESTOL 3750	1.3				
	100.0				

## Procedure

Blend ingredients; heat to 70°C. Stir cool to 40°C. Adjust pH to 6.5. Add color, fragrance and preservative as required. Package.

## Typical Properties

**Appearance** Pearled lotion

**Viscosity @ 25°C** 4,000 cP

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## CLEAR CONDITIONING BODY WASH

The following formula provides rich lather, excellent rinsability and cleansing properties while leaving the body feeling fresh, clean and silky smooth.

Ingredients	% by weight
Water	14.6
Tetrasodium EDTA (40%)	0.3
Sodium Chloride	1.0
<b>ARLATONE MAP 230 T-60</b>	6.7
Sodium Laureth-2 Sulfate (26%)	46.4
Sodium Lauryl Sulfate (28%)	27.0
<b>PROMIDIUM CO</b>	4.0
	100.0

### Procedure

Blend ingredients in the order listed. Adjust the pH to 5.5. Add fragrance, color and preservative as required.

### Typical Properties

<b>Appearance</b>	Clear viscous liquid
<b>Viscosity @ 25°C</b>	11,000 cP
<b>Total Solids (%)</b>	28.8

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## HAND AND BODY LOTION

This lotion is designed for use on traditionally dry areas such as elbows, hands and heels. The combination of PHOSPHOLIPID SV and MONASIL PCA provides strong substantivity, non-greasy emolliency and a soft silky after-feel.

Ingredients	% by weight
<b>Part A</b>	
PHOSPHOLIPID SV	3.0
Propylene Glycol	2.0
Titanium Dioxide	0.4
Triethanolamine (99%)	0.6
Water	85.0
<b>Part B</b>	
Cetyl Alcohol	2.0
<b>ARLATONE MAP 160</b>	1.0
Hexyl Laurate	4.0
<b>MONASIL PCA</b>	2.0
	100.0

## Procedure

Heat Parts A and B separately to 60°C. Slowly add Part B to Part A with homogenization and continue blending for an appropriate time. Stir cool to 40°-45°C. Add color, fragrance and preservative. Package.

## Typical Properties

Viscosity @ 25°C	100,000 cP
pH	6.4

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## SKIN THERAPY CREME

A non-greasy creme especially designed for night-time use or as a daytime under make-up moisturizer. Daily application will reduce fine dry lines in the skin and allow the skin to maintain a more youthful appearance.

Ingredients	% by weight
<b>Part A</b>	
PHOSPHOLIPID GLA	1.5
PHOSPHOLIPID SV	2.2
ARLATONE MAP 160	1.0
PRICERINE® 9088	2.0
Titanium Dioxide	0.5
Aminomethylpropanol	0.4
Water	80.4
<b>Part B</b>	
Cetyl Alcohol	2.0
BRIJ 72	2.0
PRISORINE 3758	0.8
ESTOL 1545	4.0
ESTOL 1517	2.4
Dimethicone 200/350 cS	0.8
	100.0

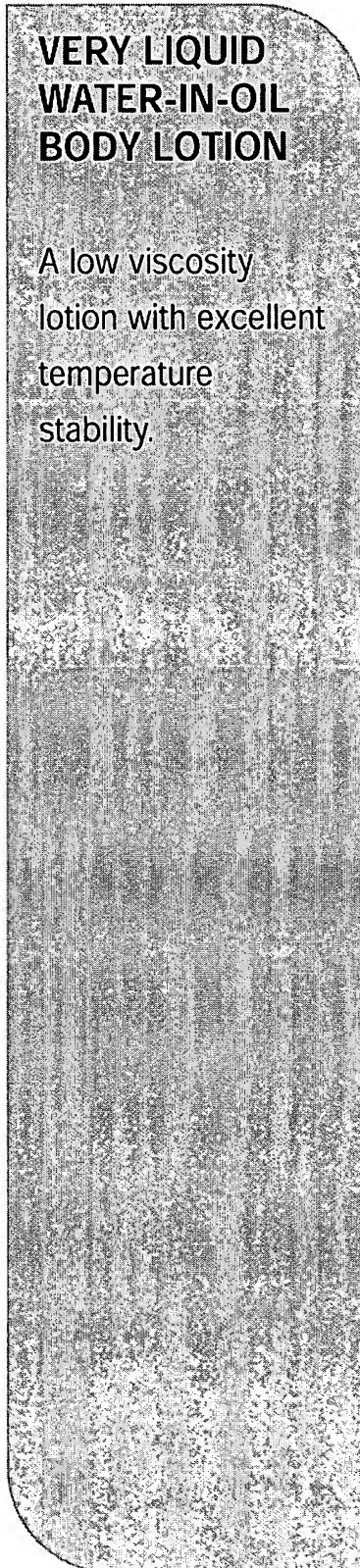
### Procedure

Heat Parts A and B separately to 65°C. Slowly add Part B to Part A with homogenization and continue blending for an appropriate time. Stir cool to 40°-45°C. Add fragrance and preservative. Package.

### Typical Properties

Appearance	Smooth white creme
pH	5.9

# FORMULATIONS



<u>Ingredients</u>	<u>% by weight</u>	
<b>Part A</b>		
<b>ARLACEL® P135</b>	2.0	S
<b>ARLAMOL® E</b>	1.8	K
Cyclomethicone	4.2	I
<b>ARLAMOL® HD</b>	12.0	N
<b>Part B</b>		C
<b>ATLAS® G-2330</b>	4.0	A
Magnesium sulphate	.7	R
Demineralised water	75.3	E
<b>Part C</b>		
Preservative	qs	
	100.0	

## Procedure

Heat phase A and B separately to 75°C.  
Slowly add B to A with vigorous agitation.  
Add phase C to phase A/B below 45°C.  
Allow to cool to room temperature while  
stirring at 100 rpm.

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Ingredients	% by weight
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**PRIMARY EMULSION**

**Part A**

<b>ARLACEL® P135</b>	2.00
<b>ARLAMOL® E</b>	7.50
<b>ARLAMOL® HD</b>	15.00
<b>Part B</b>	
Demineralised water	67.00
<b>Part C</b>	
Preservative	.50

**Procedure**

Heat A and B separately to 75°C. Add C to B just before emulsification. Slowly add C/B to A with good agitation. Homogenize thoroughly for one minute. Return to rapid stirring and when temperature drops to 45°C homogenize again. Stir to room temperature and package

Ingredients	% by weight
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**SECONDARY EMULSION**

**Part A**

Primary emulsion	50.00
<b>Part B</b>	
<b>ARLATONE® 2121</b>	5.00
Demineralised water	44.00
Xanthan gum	.50
<b>Part C</b>	
Preservative	qs

100.0

**Procedure**

Disperse xanthan gum in water while stirring vigorously and heat to 80°C. Slowly add A to B while continuing to stir vigorously. Add C below 35°C and cool to room temperature while stirring.

# FORMULATIONS

## OIL FREE PEARLESCING CREAM

A elegant cream  
having great  
emolliency  
properties without  
the usage of oils.

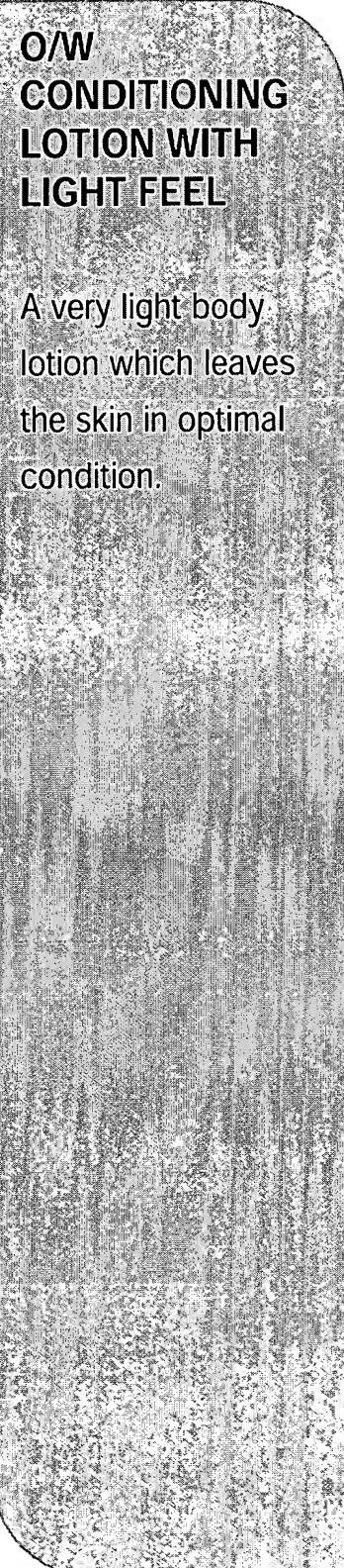
<u>Ingredients</u>	<u>% by weight</u>	
<b>Part A</b>		
Cetyl alcohol	4.00	S
<b>ARLAMOL® ISML</b>	1.00	K
<b>BRIJ®721</b>	1.20	I
<b>BRIJ® 72</b>	.20	N
<b>Part B</b>		
Demineralised water	92.10	C
Carbopol 5984	.20	A
<b>Part C</b>		
Sodium hydroxide	.20	R
<b>Part D</b>		
Preservative	qs	E
	100.0	

## Procedure

Disperse Carbopol in water. Heat A and B to 70°C separately. Add A quickly to B while stirring vigorously. Homogenize intensively for 1 minute. Add C and D below 40°C. Adjust pH to 5.5 to 6.0 with 10% NaOH solution. Cool to room temperature with moderate stirring.

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<b>Ingredients</b>	<b>% by weight</b>
<b>Part A</b>	
<b>BRIJ® 721</b>	2.00
<b>BRIJ® 72</b>	2.00
<b>ESTOL® 3603</b>	4.00
<b>PRIPURE® 3786</b>	6.00
<b>PRISORINE® 2039</b>	2.00
Tocopherol	.50
Aloe Vera	.50
Dimethicone	.50
<b>Part B</b>	
<b>PRICERINE® 9088</b>	4.00
Methylparaben	.17
Propylparaben	.03
DMDM Hydantoin	.30
Demineralised Water	77.20
<b>Part C</b>	
d-Panthenol	.50
Sodium Hyaluronate	.50
	100.0

## Procedure

Heat phase A and B separately to 75°C.  
Mix B to A until homogenous.  
Homegenise. Allow to cool to 40°C while mixing at 100 rpm. Add phase C to phase A/B and allow to emulsify while mixing at 250 rpm. Allow to cool to room temperature while stirring at 100 rpm.

# FORMULATIONS

## CONDITIONING LOW VISCOSUS SPRAYABLE LOTION

An elegant, versatile lotion with excellent spreading properties, which also enhances the conditioning and moisturization of the skin.

Ingredients	% by weight	S K I N
<b>Part A</b>		
<b>ARLATONE® 983S</b>	1.65	
<b>BRIJ® 76</b>	1.65	
<b>ESTOL® 3609</b>	5.00	
<b>PRIPURE® 3786</b>	5.00	
<b>PRISORINE® 2039</b>	2.00	
Tocopherol	.50	
Aloe Vera	1.00	I
<b>ARLATONE® 985</b>	1.00	
Dimethicone	.30	N
<b>Part B</b>		
<b>PRICERINE® 9088</b>	4.00	C
Methylparaben	.17	
Propylparaben	.03	
DMDM Hydantoin	.30	A
Demineralised Water	76.09	
		R
		E
	100.0	

## Procedure

Heat phase A and B separately to 75°C.  
Mix B to A until homogenous.  
Homegenise Allow to cool to 40°C while mixing at 100 rpm Add phase C to phase A/B and allow to emulsify while mixing at 250 rmp. Allow to cool to room temperature while stirring at 100 rpm.

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## ULTRA SUNSCREEN LOTION

This formulation utilizes a unique combination of sunscreen additives to provide a high skin protection factor.

MONASIL PCA provides emolliency, slip and increased water resistance.

ARLATONE MAP 180 is an effective emulsifier and dispersant for the sunscreens.

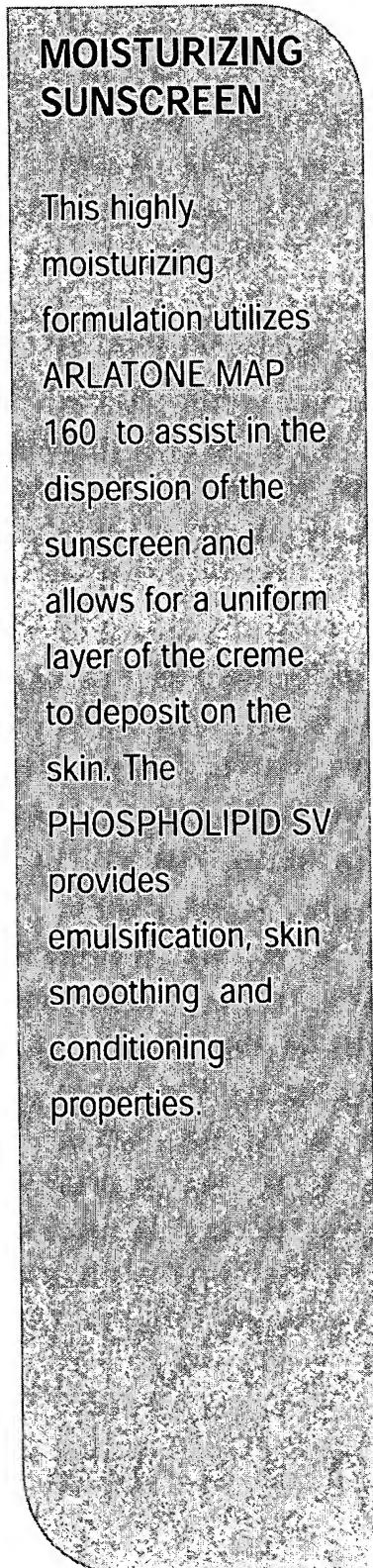
PHOSPHOLIPID GLA provides a topical delivery of gamma-linolenic acid an essential fatty acid which helps to diminish the effects of the suns harmful rays.

Ingredients	% by weight
<b>Part A</b>	
Water	62.10
Na <sub>2</sub> EDTA	0.05
Hydroxyethyl Cellulose	0.25
Ultra Micronized Titanium Dioxide	3.00
AMP	0.85
<b>Part B</b>	
C <sub>12-15</sub> Alkyl Benzoate	6.00
Octyl Methoxycinnamate	7.50
Octyl Salicylate	2.00
Cetyl Alcohol	2.50
<b>ESTOL 3737</b>	3.00
<b>ARLATONE MAP 180</b>	2.50
PEG-150 Distearate	0.25
<b>MONASIL PCA</b>	1.00
Menthyl Anthranilate	3.00
<b>Part C</b>	
Benzophenone-3	3.00
<b>Part D</b>	
<b>PHOSPHOLIPID GLA</b>	6.00
	100.00

### Procedure

To water add the EDTA, disperse the titanium dioxide and the hydroxyethyl cellulose. Heat to 75°C-80°C, then add AMP. Combine ingredients of Part B, heat to 75°C and add to Part A. Homogenize. Adjust pH to 6.0-6.5. Discontinue heating, add the benzophenone-3 and PHOSPHOLIPID GLA. Stir to 50°C. Add fragrance and preservative. Package.

# FORMULATIONS



Ingredients	% by weight	
<b>Part A</b>		
ARLATONE MAP 160	1.0	S
PHOSPHOLIPID SV	2.5	
KOH (45%)	0.4	K
Titanium Dioxide	0.4	
Water	79.1	I
<b>Part B</b>		N
Cetyl Alcohol	2.0	
C12-15 Alkyl Benzoate	1.6	
ESTOL 1517	2.0	
Dimethicone	1.0	C
Octyl Methoxycinnamate	6.0	
Menthyl Anthranilate	3.0	A
BRIJ 72	1.0	
	100.0	R

## Procedure

Heat Parts A and B separately to 65°C. Slowly add Part B to Part A with homogenization and continue blending for an appropriate time. Stir cool to 40°-45°C. Add color, fragrance and preservative. Package.

## Typical Properties

SPF	~ 15
Viscosity @ 25°C	250,000 cP
pH	6

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## MILK ENRICHED SUNSCREEN STICK

This non-volatile PABA-free water-proof sunscreen stick has an SPF factor of approximately 15. MONALAC ML provides a rich, smooth, protective and non-greasy feel to the skin and readily solubilizes the sunscreen actives.

Ingredients	% by weight
MONALAC ML	75.0
Ozokerite #1 Wax	15.0
Octyl Methoxycinnamate	7.0
Benzophenone-3	3.0
	100.0

### Procedure

Blend the MONALAC ML and Ozokerite #1 together at 65°-75°C. Avoid air entrainment. When uniform, add other ingredients one at a time and continue blending until clear. Reduce heat. Add fragrance, antioxidant (optional) and preservative. Pour at 50°-60°C into package. A rich, smooth protective and non-greasy skin covering will be provided.

### Typical Properties

Appearance      Off-white solid

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## SELF-TANNING LOTION

A formulation that adds color to the skin indoors or outdoors. The combination of PHOSPHOLIPID SV and MONASIL PCA provides long-lasting conditioning and smoothing.

Ingredients	% by weight
<b>Part A</b>	
Water	82.9
<b>PHOSPHOLIPID SV</b>	3.0
Propylene Glycol	2.0
<b>Part B</b>	
<b>ARLATONE MAP 160</b>	1.0
Cetyl Alcohol	2.0
Hexyl Laurate	1.0
<b>MONASIL PCA</b>	2.0
<b>Part C</b>	
Triethanolamine (99%)	1.0
Sodium Metabisulfite	0.1
Dihydroxyacetone	5.0
	100.0

## Procedure

Combine Part A while heating to 75°C. Separately, mix Part B while heating to 70°C. Add Part B to Part A slowly; homogenize. Add triethanolamine and sodium metabisulfite. Stir cool to 60°C. Add dihydroxyacetone. Cool to 50°C. Add fragrance and preservative. Package.

## Typical Properties

<b>Appearance</b>	Moderately viscous opaque lotion
<b>Viscosity @ 25°C</b>	48,000 cP
<b>pH</b>	5.5

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## O/W SUNSCREEN LOTION (SPF 5)

This is a light, elegant skin care lotion providing broad-spectrum UV protection via Spectraveil AQ, a unique aqueous dispersion of zinc oxide which facilitates easy incorporation of zinc oxide into oil-in-water emulsions

<b>Ingredients</b>	<b>% by weight</b>
<b>Part A</b>	
<b>ARLACEL® 165</b>	5.00
Stearyl alcohol	1.00
Mineral oil, light	6.00
Dimethicone, 350cs	2.00
Sweet almond oil	3.00
C12-15 Alkyl benzoate	4.50
<b>Part B</b>	
Demineralised water	61.40
Carbomer	.20
<b>PRICERINE® 9088</b>	4.00
<b>SPECTRAVEIL® AQ</b>	12.50
<b>Part C</b>	
Preservative	qs
	100.0

### Procedure

Disperse carbopol in water and add glycerol. Add SPECTRAVEIL AQ with vigorous stirring. Heat phase A and B to 80°C. Add A to B with continuous stirring. Homogenize. Cool to 45°C while stirring and add phase C. Cool to room temperature while stirring.

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## O/W SUNSCREEN LOTION (SPF 15)

This formulation is based on a "liquid crystal gel network" or "hydrosome" system, which gives excellent emulsion stability. The liquid crystal gel network also maintains optimal distribution of the aqueous TiO<sub>2</sub> dispersion, ensuring good SPF efficacy.

Ingredients	% by weight
<b>Part A</b>	
<b>ESTOL® 1543</b>	5.00
Cetearyl Octanoate	5.00
Dimethicone, 100cs	3.00
Oxynex 2004, BHT, Glyceryl Stearate, Glyceryl Oleate, Ascorbyl Palmitate, Citric Acid, Propylene Glycol	.05
White Beeswax	3.50
<b>Part B</b>	
<b>ARLATONE® 2121</b>	5.50
Xanthan Gum	.20
Sodium Lactate, 70% solution	.30
Demineralised Water	61.65
<b>TIOVEIL® AQ-G</b>	15.00
Preservative	qs
	100.0

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## Procedure

Mix water and sodium lactate and heat to 80°C. Melt ARLATONE 2121 and add this to the hot water phase with vigorous stirring. Disperse xanthan gum into the hot water phase. Add TIOVEIL AQ with vigorous stirring. Heat phase A to 80°C and mix until homogenize. Add phase A to phase B with high sheer mixing. Cool to room temperature while stirring moderately. Homogenize briefly.

# FORMULATIONS

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## O/W SUNSCREEN LOTION (SPF 20)

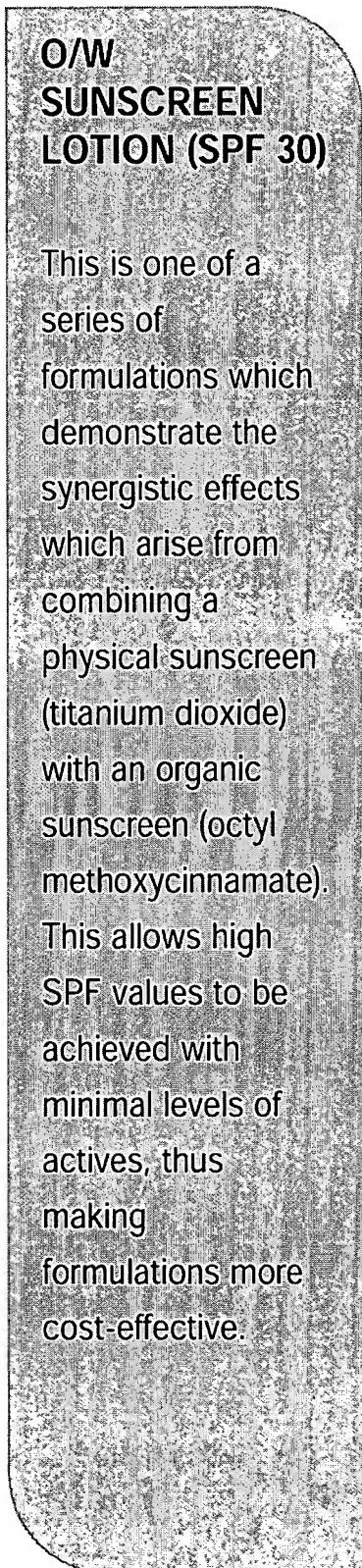
This formula demonstrates how Uniqema ingredients can be combined to provide the entire "framework" of a formulation. The combination of Span 40, Tween 20, Estol 1474 and ARLATONE MAP160K provides an optimized system to fully utilize the advantages of Solaveil's new range of oil-based TiO<sub>2</sub> dispersions, Tioveil 50.

Ingredients	% by weight
<b>Part A</b>	
<b>ESTOL® 1474</b>	2.00
Diisostearyl Trimethylolpropane	
Siloxy Silicate	3.00
<b>ARLATONE® MAP 160K</b>	.50
<b>SPAN® 40</b>	3.50
Dimethicone, 100cs	1.50
Beeswax, white pellets	3.50
<b>TIOVEL® 50 FIN</b>	15.00
<b>Part B</b>	
Xanthan Gum	.20
Magnesium Aluminium Silicate	.80
Demineralised Water	61.45
Preservative	qs
<b>TWEEN® 20</b>	3.50
Sodium lactate, 70% solution	.30
	100.0

### Procedure

Disperse xanthan gum and veegum in water. Add remaining B ingredients and heat to 75°C. Heat A to 75°C. Add A to B and homogenize for 2 minutes. Cool to room temperature while stirring slowly.

# FORMULATIONS



<b>Ingredients</b>	<b>% by weight</b>	
<b>Part A</b>		<b>S K I N</b>
<b>ESTOL® 1514</b>	4.0	
Mineral oil	6.5	
Grape seed oil	2.5	
Stearyl alcohol	2.0	
Petrolatum	2.0	<b>C A R E</b>
Octyl methoxycinnamate	5.0	
<b>Part B</b>		
Demineralised water	51.8	
<b>SPAN® 60</b>	6.0	
<b>MONAMATE® RMEA 40</b>	.2	<b>C A R E</b>
<b>PRICERINE® 9088</b>	4.0	
<b>ALLANTOIN®</b>	.2	
d-Panthenol	.8	
<b>TIOVEIL® AQ</b>	15.0	
<b>Part C</b>		
Preservative	qs	
	100.0	

## Procedure

Heat A and B separately to 80°C. Add A to B while stirring vigorously. Homogenize. Cool to room temperature while stirring slowly. Add C.

# FORMULATIONS

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## W/O SUNSCREEN LOTION (SPF 20)

Water-in-oil emulsions are typically the most effective vehicle for oil-dispersed physical sunscreens, as illustrated by this formulation. Arlacel P135 allows these W/O systems to be formulated in an elegant, cost-effective manner; the Tioveil 50 dispersion also helps to stabilize the emulsion, allowing emulsifier concentration to be minimized. The waxes provide the optimum rheology for a high SPF.

Ingredients	% by weight
<b>Part A</b>	
<b>ARLACEL® P135</b>	2.00
Mineral oil	7.00
<b>ARLAMOL® HD</b>	5.00
<b>ESTOL® 3603</b>	7.00
<b>ESTOL® 1543</b>	8.00
<b>ARLAMOL® E</b>	3.50
<b>ATLAS® 1500</b>	.80
Oxokerite	1.20
Cyclomethicone	1.50
<b>TIOVEIL® 50 MOTG</b>	16.00
<b>Part B</b>	
Demineralised Water	47.50
Sodium chloride	.05
Preservative	qs
	100.0

### Procedure

Heat phases A and B separately to 75°C. Slowly add B to A with intensive stirring. Homogenize. Cool to room temperature while stirring.

# FORMULATIONS



<b>Ingredients</b>	<b>% by weight</b>	
<b>Part A</b>		
Water	50.0	S
Carbomer	0.4	K
Triethanolamine (99%)	0.6	I
<b>MONASIL PLN</b>	3.0	N
<b>Part B</b>		C
Water	30.0	A
Cetyl Alcohol	1.0	R
Ethanol	15.0	E
	100.0	

## Procedure

### Part A

Charge water; slowly and carefully add carbomer with agitation. Add remaining ingredients and mix until a smooth white lotion is formed.

### Part B

Heat with agitation the water and cetyl alcohol to 65°C. Cool to 45°C; add ethanol. Blend Part B with Part A. Add color, fragrance and preservative. Package.

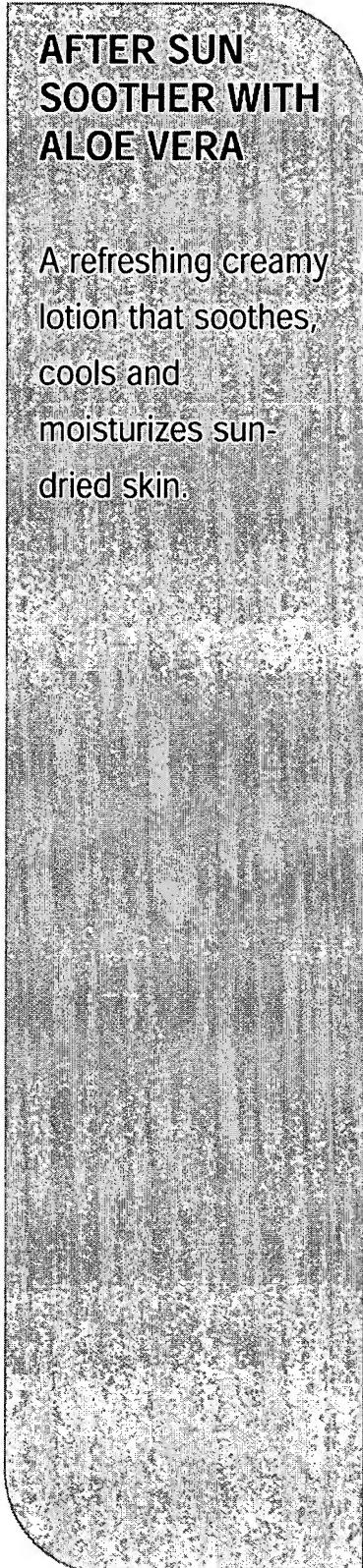
## Typical Properties

**Appearance** White viscous lotion

**Viscosity @ 25°C** 38,000 cP

# FORMULATIONS

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Ingredients	% by weight
<b>Part A</b>	
Water	86.25
<b>PHOSPHOLIPID SV</b>	3.00
Propylene Glycol	2.00
<b>Part B</b>	
<b>ARLATONE MAP 160</b>	1.00
Cetyl Alcohol	2.00
Hexyl Laurate	1.00
<b>MONASIL PCA</b>	2.00
<b>Part C</b>	
AMP (95%)	0.35
<b>Part D</b>	
Titanium Dioxide	0.40
<b>Part E</b>	
Aloe Vera Gel 1:1	2.00
	100.00

## Procedure

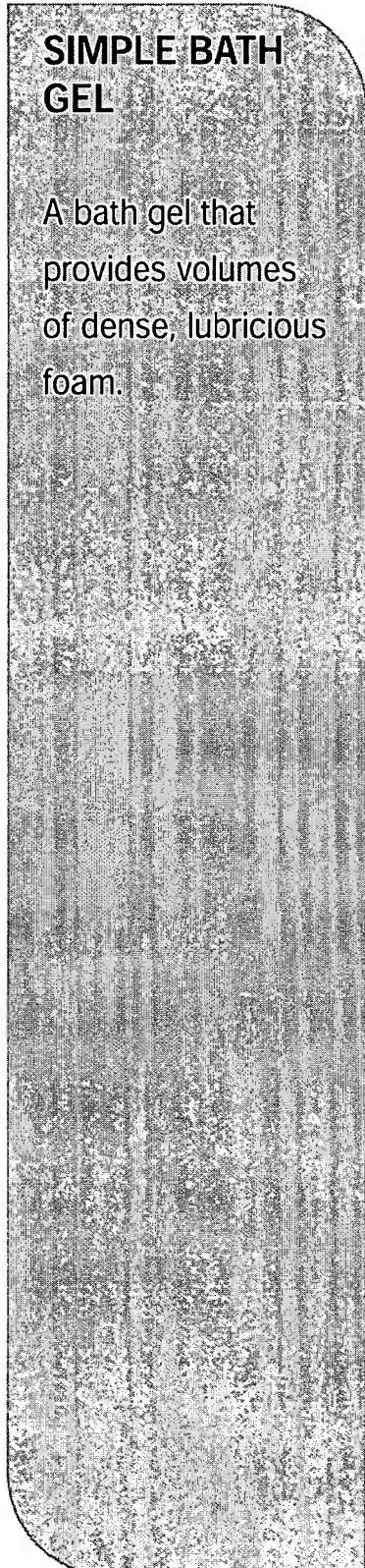
Combine Part A while heating to 70°C. Separately, mix Part B while heating to 70°C. Add Part B to Part A slowly with rapid agitation. Add Part C. Add Part D, homogenize, cool to 50°C. Add aloe vera, color, fragrance and preservative. Package.

## Typical Properties

Appearance	White flowable lotion
Viscosity	23,400 cP
pH	6.1

Ref F-836

# FORMULATIONS



<u>Ingredients</u>	<u>% by weight</u>	T O I L E T R I E S
<b>Part A</b>		
Ammonium lauryl sulfate (28% active)	28.50	
<b>MONATERIC® CAB-LC</b>	7.10	
<b>ARLATONE® MAP 950</b>	2.50	
<b>Part B</b>		
Sodium chloride	1.00	
<b>Part C</b>		
Potassium hydroxide (50% solution)	qs to pH of 6.5	
<b>Part D</b>		
Preservative	qs	
	100.0	

## Procedure

Stir A to room temperature until the mixture is uniform. Add B to A with moderate stirring. Adjust the pH with C while stirring moderately. Add D and stir until uniform and package.

# FORMULATIONS

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## 2 IN 1 CREAMY BODY WASH

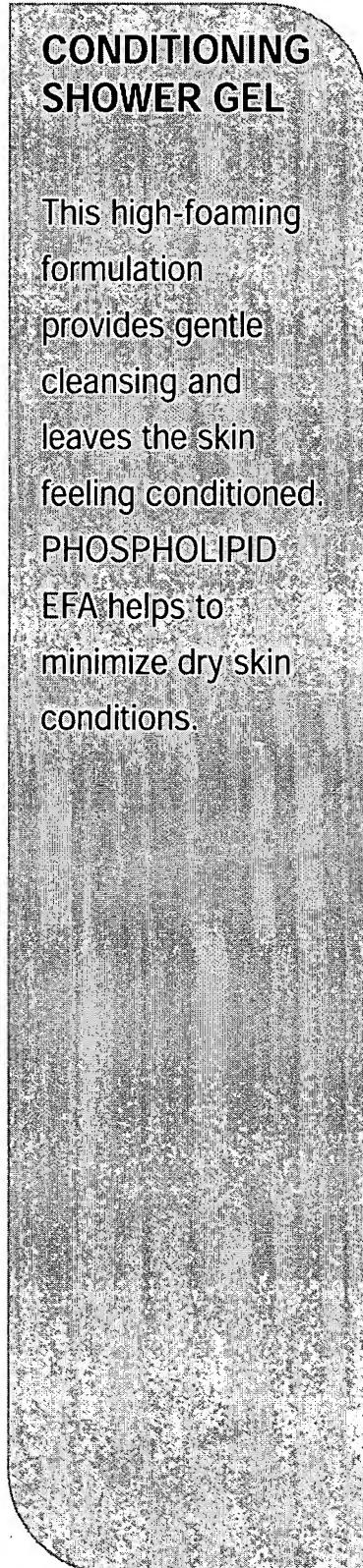
A mild nondrying formula with a unique emulsion like appearance that has excellent viscosity and stability parameters.

<b>Ingredients</b>	<b>% by weight</b>
<b>ARLATONE® DUO</b>	20.00
Water	75.40
Xanthan Gum	0.10
<b>ARLATONE® MAP 950</b>	2.50
Triethanolamine	q.s. to pH 7.0
Dimethicone	2.00
Quaternium-15	q.s.
	100.0

### Procedure

Heat water to 80°C and disperse xanthan gum and the ARLATONE DUO with vigorous stirring. Add B to A with moderate stirring. Add C to A/B mixture below 50°C. Add D below 40°C. Cool to room temperature with continuous stirring.

# FORMULATIONS



Ingredients	% by weight	T O I L E T R I E S
Water	55.5	
<b>PHOSPHOLIPID EFA</b>	2.0	
Sodium Laureth-2 Sulfate (26%)	35.0	
<b>MONATERIC CAB-LC</b>	5.0	
<b>MONAMID CMA/M</b>	2.0	
Sodium Chloride	0.5	
	100.0	

## Procedure

Add ingredients in the order listed making sure each one is completely dissolved before adding the next ingredient. Heat to 60°-70°C to incorporate MONAMID CMA/M. Cool to 40°C. Add color, fragrance, and preservative as required. Package.

# FORMULATIONS

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## FLOATING BATH OIL

This formulation effectively spreads out on the bath surface and moist skin letting the emollients soften and smooth the skin.

Ingredients	% by weight
<b>ESTOL® 1517</b>	50.0
Dioctyl Adipate	39.9
Mineral Oil	10.0
<b>MONAWET MO-84R2W</b>	0.1
	100.0

### Procedure

Combine ingredients with agitation. Add color, fragrance and preservative.

Package.

### Typical Properties

Appearance      Clear liquid

# FORMULATIONS

## ANTI-PERSPIRANT LOTION

When this lotion is applied, it imparts a smooth, dry feel and also has a low potential for skin irritation.

Ingredients	% by weight
<b>Part A</b>	
<b>ARLATONE® 983S</b>	1.75
<b>BRIJ® 76</b>	1.75
<b>ESTOL® 1543</b>	4.00
<b>PRIPURE® 3786</b>	3.00
<b>ESTOL® 3609</b>	4.00
Behenyl Alcohol	3.00
<b>ARLATONE® 985</b>	2.00
<b>Part B</b>	
<b>PRICERINE® 9088</b>	4.00
Methylparaben	.17
Propylparaben	.03
DMDM Hydantoin	.20
Demineralised Water	36.10
<b>Part C</b>	
Aluminum Chlorohydrate	40.00
	100.00

## Procedure

Heat phase A and B separately to 75°C. Mix B to A at 300 rpm. Homogenize for approximately 20 seconds to emulsify. Allow to cool to 45°C while stirring at 100 rpm. Mix in C at 300 rpm. Allow to cool to room temperature while stirring at 100 rpm.

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## DEODORANT CREME

A non-greasy creme formulation that is quickly absorbed into the skin.

PHOSPHOLIPID CDM conditions and imparts a fresh and clean after-feel to the skin and provides longer-lasting deodorant protection.

Ingredients	% by weight
<b>Part A</b>	
<b>PHOSPHOLIPID CDM</b>	1.0
<b>BRIJ 78</b>	1.4
<b>PRICERINE 9088</b>	5.0
Methylparaben	0.1
Water	83.5
<b>Part B</b>	
<b>BRIJ 72</b>	2.0
Cetyl Alcohol	4.0
<b>ESTOL 1514</b>	3.0
	100.0

## Procedure

Combine ingredients in both parts separately, and heat to 65°C. Homogenize Part B and Part A with continued heating until sufficiently mixed. Stir cool to 45°C. Add color, fragrance and preservative. Package.

# FORMULATIONS



Ingredients	(R68.03-159.06) % by weight
Propylene Glycol	50.5
<b>RENEX® PEG 1500FL</b>	6.0
<b>PROMIDIUM SY</b>	7.0
<b>PHOSPHOLIPID CDM</b>	1.0
Triclosan	0.1
<b>MONATERIC CLV</b>	2.5
Fragrance	2.0
Sodium Stearate	6.0
Demineralised Water	24.9
	100.0

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## Procedure

Heat the Promidium SY, propylene glycol and the Renex PEG 1500FL to 70-75°C. Add the triclosan. Mix. Add fragrance, Phospholipid CDM and Monateric CLV stirring slowly. Add sodium stearate, when melted, stir and add water slowly. Discontinue heating. Cool to 40°C, fill warm.

# FORMULATIONS

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## DEODORANT STICK

In this formulation, PHOSPHOLIPID PTC offsets the drying effects of the alcohol and provides a conditioned non-greasy after-feel to skin.

Ingredients	% by weight
<b>PRISTERINE® 4905</b>	8.0
Ethanol	73.6
Propylene Glycol	10.0
<b>ESTOL 1517</b>	5.0
<b>PHOSPHOLIPID PTC</b>	1.0
Sodium Hydroxide 50%	2.4
	100.0

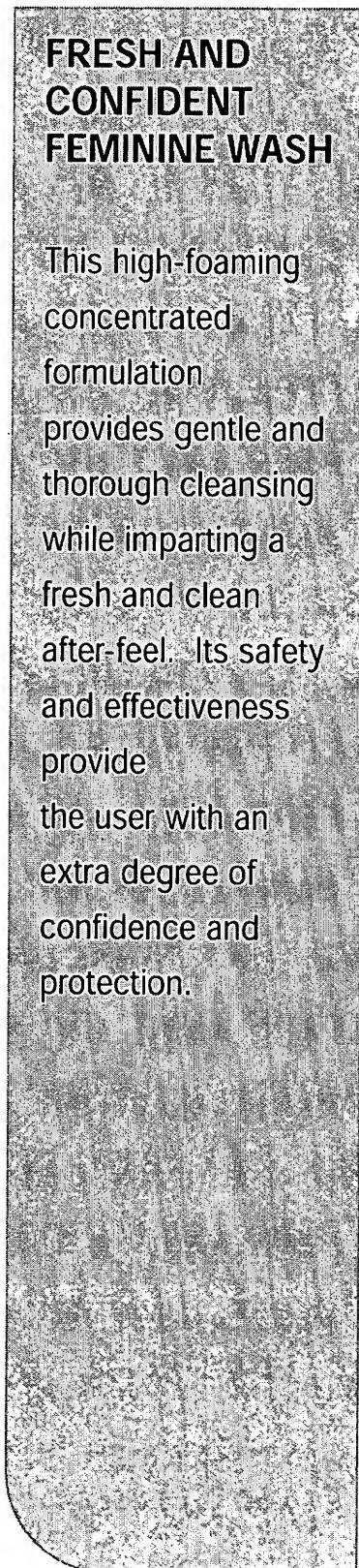
### Procedure

Blend ingredients together, except the sodium hydroxide. Heat and agitate to 65°-70°C, then slowly neutralize the stearic acid with the sodium hydroxide 50% and continue mixing until clear. Cool slightly to 70°C. Add color and fragrance. Package.

### Typical Properties

**Appearance** Translucent solid

# FORMULATIONS



<u>Ingredients</u>	<u>% by weight</u>
<b>PHOSPHOLIPID PTC</b>	2.0
<b>MONATERIC 949-J</b>	9.0
Sodium Laureth-2 Sulfate (26%)	30.0
Water	59.0
	100.0

## **Procedure**

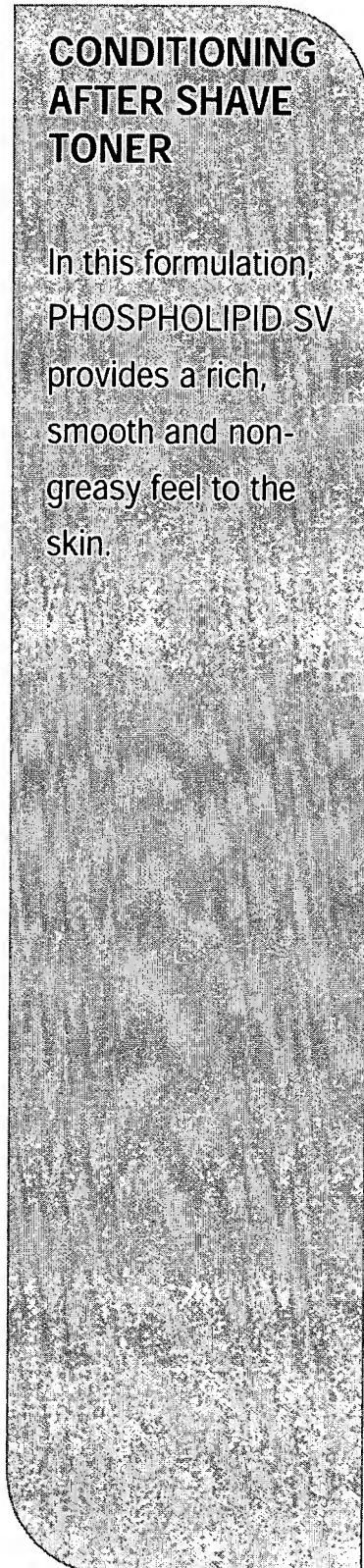
Blend ingredients in order listed, adjusting pH to 5.5-6.0. Add color, fragrance and preservative. Package

## **Typical Properties**

**Appearance** Clear liquid

**Viscosity @ 25°C** 12,000 cP

# FORMULATIONS



<b>Ingredients</b>	<b>% by weight</b>	<b>P E R F U M E S</b>
<b>Part A</b>		
Water	51.0	
Carbomer	0.4	
Phenyl Dimethicone	2.0	
Triethanolamine (99%)	0.6	
<b>Part B</b>		
Water	30.0	
<b>PHOSPHOLIPID SV</b>	1.0	
Ethanol	15.0	
	100.0	

## **Procedure**

Slurry carbomer into water by first mixing it with phenyl dimethicone. Allow to mix until homogeneous. Add triethanolamine. Mix water and PHOSPHOLIPID SV. Heat to 65°C with agitation until the PHOSPHOLIPID SV is dissolved. Cool to 30°-40°C and add ethanol. Blend Part B with Part A until a smooth lotion is formed. Add color, fragrance and preservative. Package.

## **Typical Properties**

<b>Appearance</b>	Translucent lotion
<b>pH</b>	7.0
<b>Viscosity @ 25°C</b>	14500 cP

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## DIAPER WIPE

This formulation utilizes the excellent detergency, mildness and substantive properties of PHOSPHOLIPID PTC. Its tendency to adsorb on the skin and its effective antimicrobial and antifungal activity helps to minimize or alleviate diaper rash type afflictions.

Ingredients	% by weight
PHOSPHOLIPID PTC	1.0
Propylene Glycol	3.0
PEG-75 Lanolin	0.2
Water	95.8
	100.0

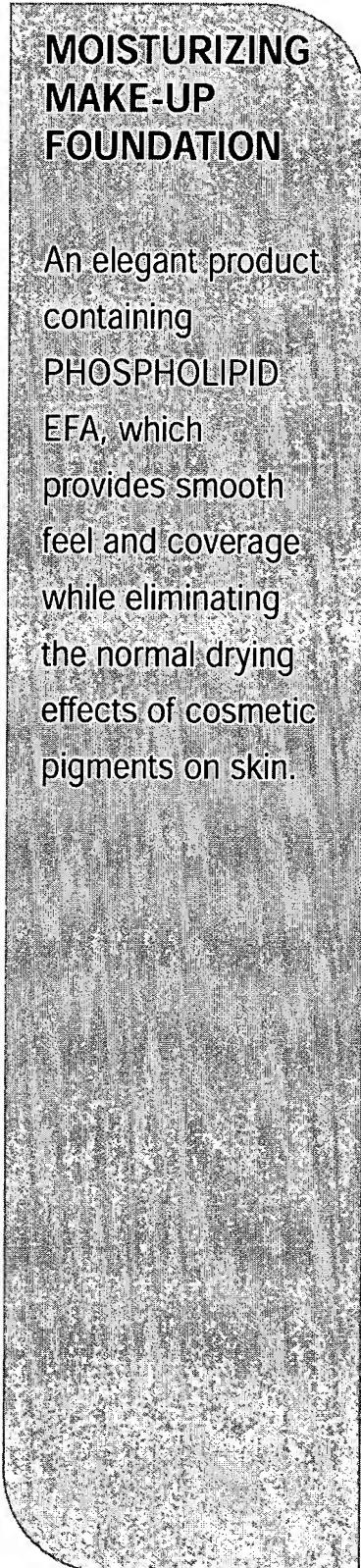
### Procedure

Combine ingredients with agitation. Add color, fragrance and preservative. Package.

### Typical Properties

Appearance	Clear pale yellow liquid
pH (as is)	6.5

# FORMULATIONS



<u>Ingredients</u>	<u>% by weight</u>	D E C O R A T I V E C O S M E T I C S
<b>Part A</b>		
<b>PHOSPHOLIPID EFA</b>	3.0	
0.5% Xanthan Gum in 1% NaCl Solution	65.0	
Propylene Glycol	8.0	
Pigment	15.0	A
<b>BRIJ® 78</b>	1.6	T
		I
<b>Part B</b>		V
<b>ESTOL 1517</b>	2.0	E
Hexyl Laurate	2.0	C
<b>BRIJ 72</b>	2.4	O
Dimethicone	1.0	S
	100.0	M
<b>Procedure</b>		E
Combine ingredients in Parts A and B as shown, and heat to 55°C. Blend Part B into Part A with sufficient homogenization to ensure good emulsification. Stir cool to 40°C. Add fragrance and preservative.		T
Package.		I

# FORMULATIONS

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## MILK LIPID ENRICHED STICK BASE

An elegant moisturizing stick base.

MONALAC ML provides long-lasting rich smoothness and gloss.

Useful for color cosmetics, cologne sticks, waterproof sun screen preparations, eye-area moisturizers and skin protectants.

Ingredients	% by weight
MONALAC ML	40.0
Beeswax USP/NF White	10.0
Candelilla Wax-75	8.0
Castor Oil USP	39.0
Carnauba Wax	2.0
Ozokerite SP 1020P	1.0
	100.0

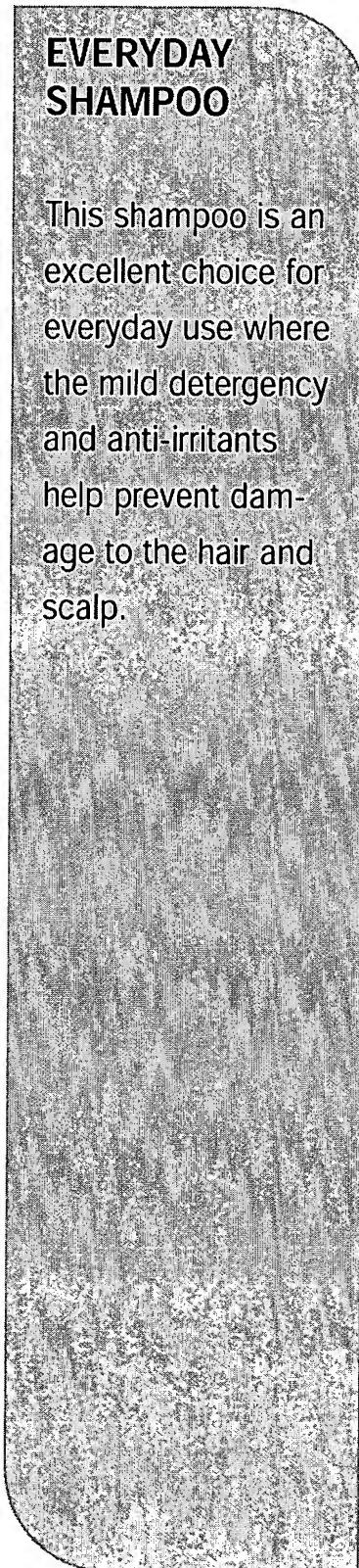
### Procedure

Heat with slow agitation to 85°C. Avoid air entrainment. When uniform, add fragrance/flavor, pigments, sunscreens or other functional ingredients as required. Package.

### Typical Properties

Appearance	Off-white solid
Melting Point	~ 43°C

# FORMULATIONS



This shampoo is an excellent choice for everyday use where the mild detergency and anti-irritants help prevent damage to the hair and scalp.

Ingredients	% by weight	H A I R C A R E
Water	19.8	
Ammonium Laureth-1 Sulfate (25%)	57.7	H
<b>arlatone MAP 230K-40</b>	12.5	A
<b>MONATERIC 949-J</b>	8.0	I
<b>PHOSPHOLIPID PTC</b>	2.0	R
	100.0	C

## Procedure

Blend in order listed. Adjust pH to 6.5-7.0. Add color, fragrance and preservative. Package.

## Typical Properties

**Appearance** Clear viscous liquid

**Viscosity @ 25°C** 10,800 cP

**Solids (%)** 24

# FORMULATIONS

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## FAMILY SHAMPOO

The following mild formulation is safe enough for everyday use even on children. It provides excellent cleansing, easily detangles and builds body in long fine hair, while leaving it soft and manageable.

Ingredients	% by weight
Water	35.2
Ammonium Laureth-2 Sulfate (25%)	30.0
Ammonium Lauryl Sulfate (28%)	20.0
<b>MONATERIC 949-J</b>	10.0
Cetyltrimonium Chloride	0.8
<b>ESTOL 3750</b>	1.0
<b>MONASIL PLN</b>	3.0
	100.0

### Procedure

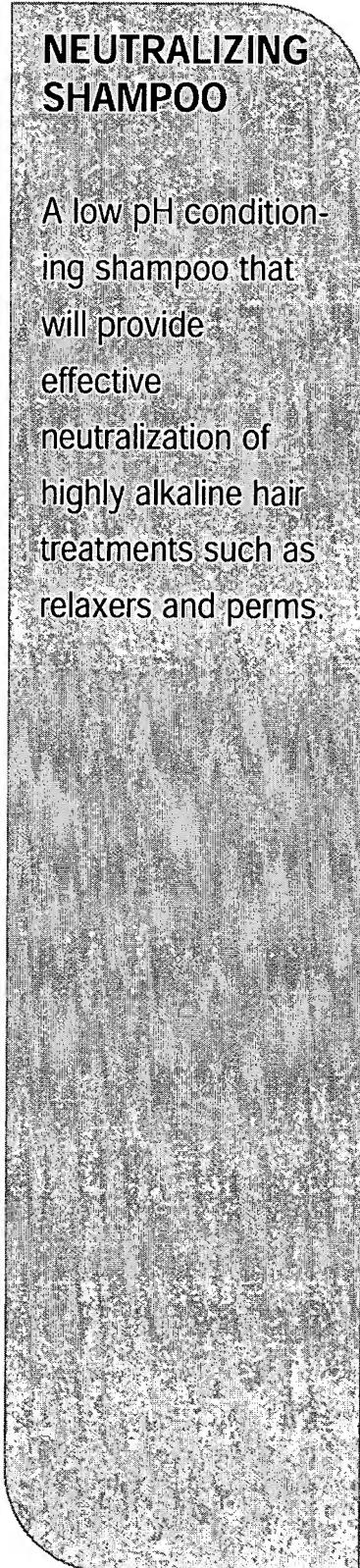
Blend ingredients, heat to 65°-70°C. Stir, cool to 30°-35°C. Adjust pH to 6.0 with 50% citric acid. Add color, fragrance and preservative as required. Package.

### Typical Properties

**Appearance**      Pearled viscous Liquid

**Viscosity @ 25°C**    11,000 cP

# FORMULATIONS



<b>Ingredients</b>	<b>% by weight</b>	
Water	46.0	
Sodium C14-16 Olefin Sulfonate (40%)	40.0	H
<b>MONALAC MAB</b>	10.0	A
<b>PHOSPHOLIPID EFA</b>	2.0	I
Sodium Chloride	2.0	R
	100.0	

## Procedure

Add first three ingredients with mild heat. Sequentially, blend in remaining ingredients. Adjust pH to 3.5-4.0. Add color, fragrance and preservative. Package.

## Typical Properties

<b>Appearance</b>	Clear viscous fluid
<b>Solids (%)</b>	22

# FORMULATIONS

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## HERBAL SHAMPOO

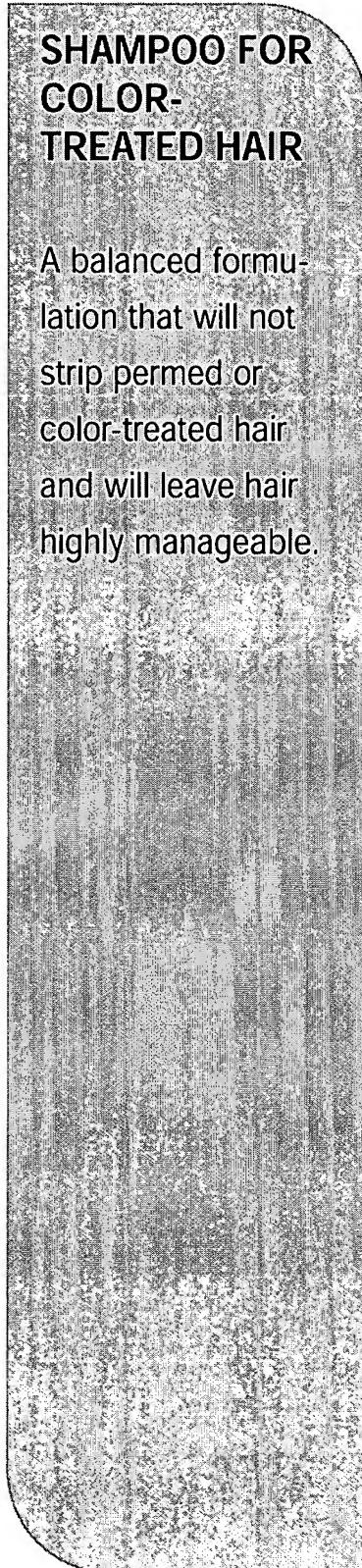
An everyday conditioning shampoo that produces a creamy lather and gently cleanses while providing a soft manageable feel to limp and damaged hair.

Ingredients	% by weight
Demineralised water	30.80
Sodium laureth-2 sulfate (26%)	55.00
<b>PROMIDIUM® CO</b>	3.00
<b>PROMIDIUM® SY</b>	1.00
<b>MONATERIC® CAB-LC</b>	6.70
<b>MONAQUAT® SL-5</b>	2.50
Propylene glycol	.50
Disodium EDTA	.20
Herbal fragrance	.20
Citric acid	.10
Preservative	qs
	100.0

### Procedure

With stirring combine all ingredients in the order listed. Add color, fragrance and preservative. Adjust the pH to 6.0 with the citric acid.

# FORMULATIONS



Ingredients	% by weight	H A I R
Water	35.5	
Sodium Laureth-2 Sulfate (26%)	40.0	H
<b>MONATERIC CLV</b>	16.0	A
<b>MONAMATE LNT-40</b>	7.0	I
<b>PHOSPHOLIPID EFA</b>	1.5	R
	100.0	

## Procedure

Blend together at room temperature. Mix well then adjust the pH to 5.5. Add color, fragrance and preservative. Package.

## Typical Properties

**Appearance** Clear viscous liquid

**Viscosity @ 25°C** 9,000 cP

**Solids (%)** 21

# FORMULATIONS

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## LEAVE-ON SCALP & HAIR CONDITIONER

A dab of Leave-On Scalp and Hair Conditioner massaged into the hair and scalp will provide conditioning and manageability to hair while providing moisturization of the scalp. PHOSPHOLIPID GLA will help maintain a healthy scalp and minimize itch and scaling caused by excessive dryness. It is also a delivery system for gamma linolenic acid, an essential fatty acid for normalizing skin.

Ingredients	% by weight
Water	90.4
Hydroxyethyl Cellulose	0.5
<b>ESTOL 3750</b>	1.5
Cetyl Alcohol	1.8
<b>MONAQUAT SL-5</b>	5.5
<b>PHOSPHOLIPID GLA</b>	0.3
	100.0

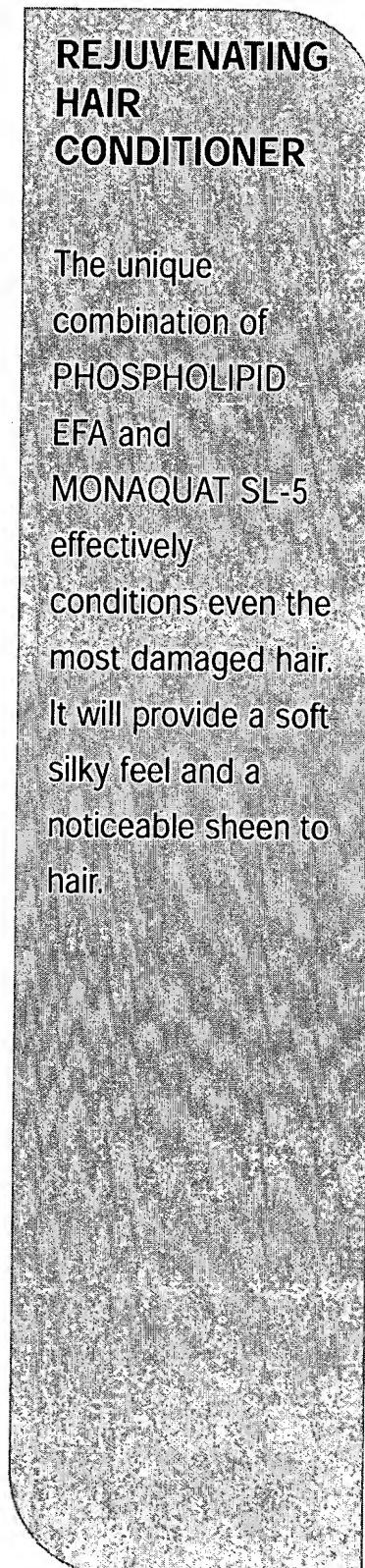
### Procedure

Charge water; slowly add hydroxyethyl cellulose with agitation. Add remaining ingredients and heat to 65°-70°C. Stir cool to 40°C. Add color, fragrance and preservative. Package.

### Typical Properties

<b>Appearance</b>	White pearled lotion
<b>Viscosity @ 25°C</b>	2,500 cP
<b>pH</b>	6.5

# FORMULATIONS



Ingredients	% by weight	
Water	85.1	H
Hydroxyethyl Cellulose	0.7	A
<b>ESTOL 3750</b>	2.0	I
Cetearyl Alcohol	2.5	R
<b>MONAQUAT SL-5</b>	6.7	C
<b>PHOSPHOLIPID EFA</b>	3.0	A
	100.0	R

## Procedure

Charge water; carefully add hydroxyethyl cellulose with agitation. Heat to 70°C and add remaining ingredients. Stir cool to 45°C and adjust pH to 4.5-5.0. Add color, fragrance and preservative as required. Continue agitation while cooling down to room temperature. Package

## Typical Properties

**Appearance** A milky white lotion

# FORMULATIONS

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## HEAT ACTIVE CONDITIONER

This heat-activated conditioner utilizes Monasil PLN to provide excellent wet comb, anti-static, sheen and dry comb properties to hair.

Ingredients	% by weight
Water	83.08
<b>MONASIL PLN</b>	4.00
Propylene Glycol	1.00
Cetearyl Alcohol	4.00
<b>Brij® 721S</b>	3.47
Quaternium-18	2.00
Cyclomethicone	2.00
	100.00

### Procedure

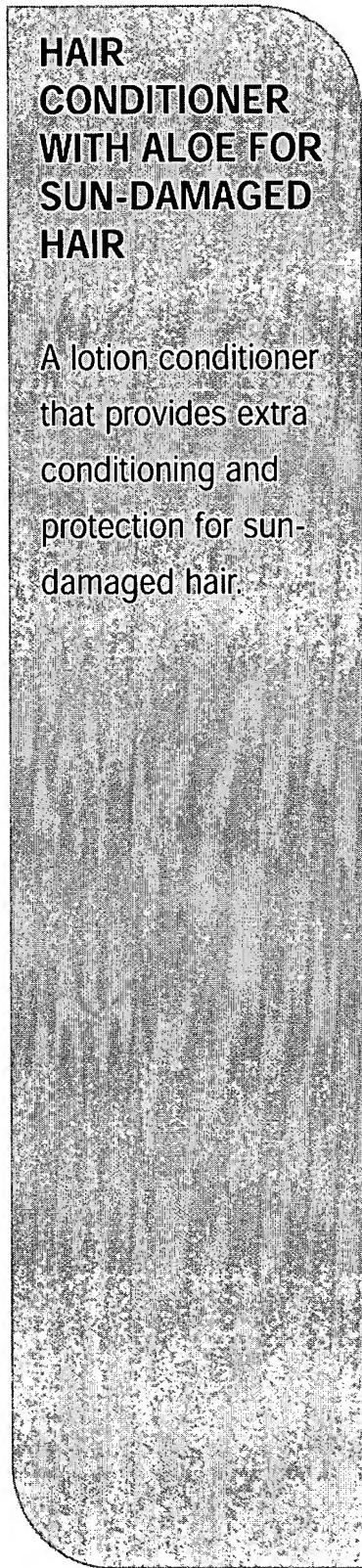
Mix ingredients except cyclomethicone while heating to 65-70°C. Cool to 60-63°C, add cyclomethicone. Agitate until uniform. Cool to 40-45°C. Add color, fragrance and preservative. Package.

### Typical Properties

pH 6

Viscosity @25°C 15,500 cP

# FORMULATIONS



Ingredients	% by weight	
Water	83.6	
Hydroxyethyl Cellulose	0.7	H
<b>ESTOL 3750</b>	2.0	A
Cetearyl Alcohol	2.5	
<b>MONAQUAT SL-5</b>	6.7	I
<b>PHOSPHOLIPID SV</b>	3.0	R
Benzophenone 3	0.5	
Aloe Vera Gel 1:1	1.0	
	100.0	C

## Procedure

Charge water; carefully add hydroxyethyl cellulose with agitation. Heat to 70°C and add remaining ingredients. Stir cool to 45°C and adjust pH to 4.5. Add color, fragrance and preservative. Package.

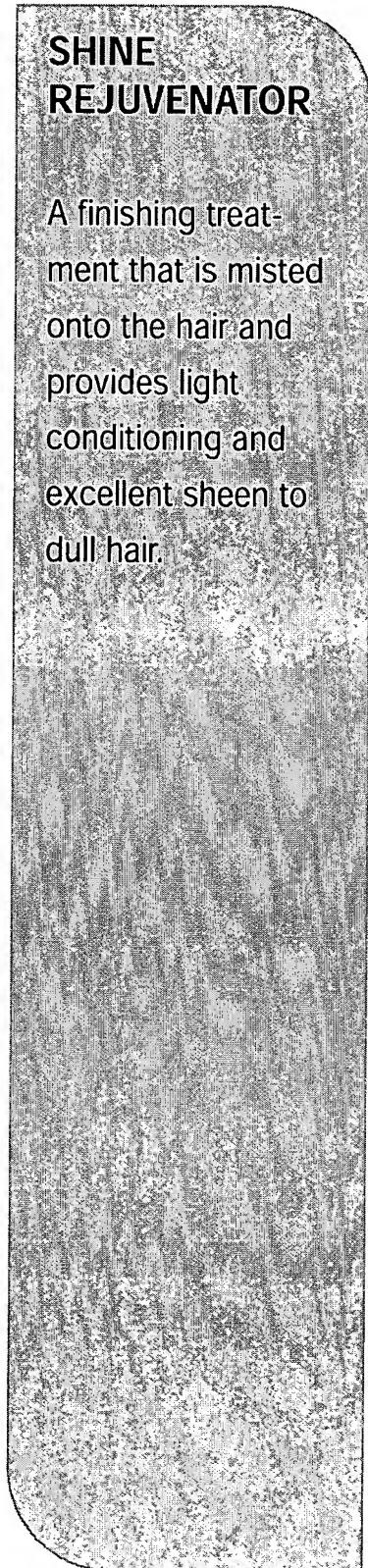
R  
E

## Typical Properties

Appearance	White flowable lotion
Viscosity	5,000 cP
pH	6.5

# FORMULATIONS

H  
A  
I  
R  
  
C  
A  
R  
E



<b>Ingredients</b>	<b>% by weight</b>
Water	98.0
<b>PHOSPHOLIPID EFA</b>	1.0
<b>MONASIL PLN</b>	1.0
	100.0

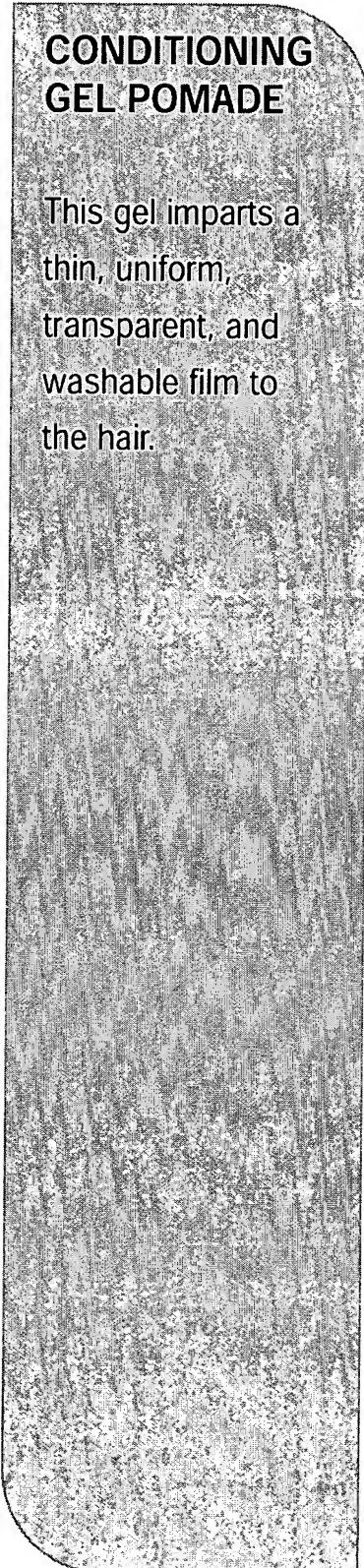
## **Procedure**

Blend ingredients; adjust pH to 4.5-5.0.  
Add color, fragrance and preservative as required. Package.

## **Typical Properties**

**Appearance** Clear liquid

# FORMULATIONS



<u>Ingredients</u>	<u>% by weight</u>	
<b>Part A</b>		
<b>ARLAMOL® E</b>	5.00	H
Mineral oil, light	6.00	A
<b>BRIJ 93</b>	6.00	I
<b>ARLASOLVE® 200</b>		R
<b>LIQUID/GEL</b>	27.80	
Propylene glycol	5.00	C
<b>FORESTALL®</b>	1.40	A
Demineralised water	41.80	R
<b>Part B</b>		E
Preservative	qs	
	100.0	

## Procedure

Heat A to 80°C while stirring. Remove from heat and add any water lost due to evaporation. (correct water level is critical to gelling) Stir until clear and uniform and add preservative according to manufacturers directions.

# FORMULATIONS

H  
A  
I  
R  
C  
A  
R  
E

## ODORLESS CREME RELAXER

This product utilizes ARLATONE MAP 180 as an invert emulsifier providing a smooth feel and coverage while eliminating the normally irritating effects of caustic relaxers.

PHOSPHOLIPID SV is a secondary emulsifier that offers emolliency and a high degree of conditioning for a healthy scalp.

<u>Ingredients</u>	<u>% by weight</u>
<b>Part A</b>	
<b>ARLATONE MAP 180</b>	3.5
Stearyl Alcohol	3.5
Petrolatum	10.0
Mineral Oil	25.0
<b>Part B</b>	
<b>PHOSPHOLIPID SV</b>	3.0
Propylene Glycol	2.0
Water	48.0
<b>Potassium Hydroxide (45%)</b>	5.0
	100.0

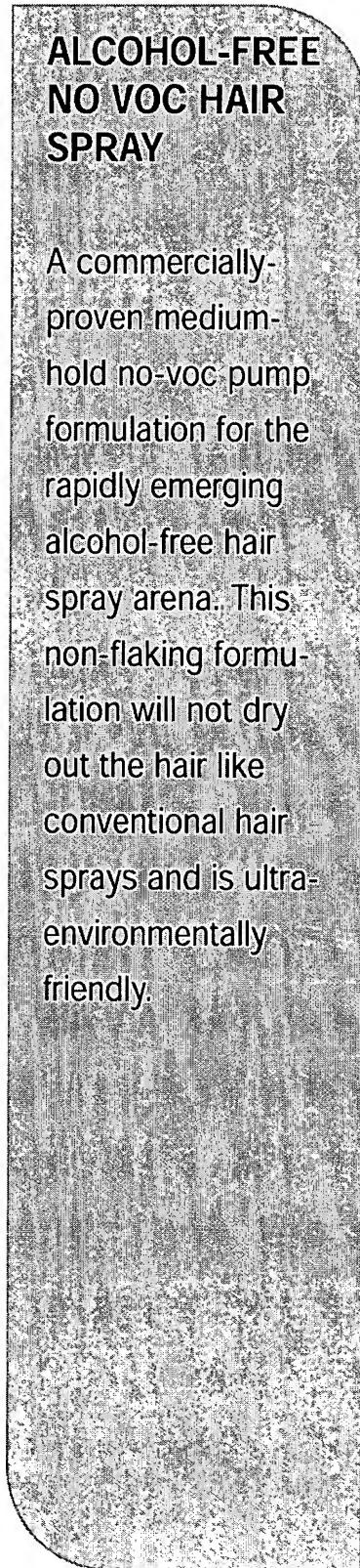
### Procedure

Heat Part A with agitation to 70°C.  
Separately heat Part B to 60°C.  
Homogenize Part B into Part A for a sufficient time to ensure good emulsification. Stir cool to 45°C. Add fragrance and preservative. Package.

### Typical Properties

Appearance	White creme
pH	13

# FORMULATIONS



Ingredients	% by weight
Water	84.46
AMP Regular	0.99
<b>BALANCE® 0/55</b>	14.00
Acrylates Copolymer	
<b>MONAWET MO-70R</b>	0.30
<b>PRICERINE® 9088</b>	0.25
	100.00

H  
A  
I  
R

C  
A  
R  
E

## Procedure

Combine ingredients in order shown with mild agitation. Add fragrance and preservative. Package in pump hair spray container.

## Typical Properties

<b>Appearance</b>	Clear
<b>pH</b>	8.5
<b>Viscosity @ 25°C</b>	8 cP

# FORMULATIONS

H  
A  
I  
R  
C  
A  
R  
E



<u>Ingredients</u>	<u>% by weight</u>
<b>Part A</b>	
Water	45.21
AMP Regular	0.66
<b>BALANCE® 0/55</b>	11.00
Acrylates Copolymer	
<b>MONAWET MO-70R</b>	0.30
<b>PRICERINE® 9088</b>	0.25
<b>Part B</b>	
DME	33.00
	100.00

## Procedure

Blend Part A together in order shown with mild agitation. Add fragrance and preservative. Fill and crimp aluminum aerosol container. Charge with Part B.

## Typical Properties

pH	8.5
VOC	33%

# FORMULATIONS

## FINISHING PUMP SPRAY

A light fixative spray that provides a conditioning sheen through the use of PHOSPHOLIPID EFA.

Ingredients	% by weight
SD Alcohol 40	49.6
<b>RESYN® 28-2930</b>	3.7
Water	45.7
Aminomethylpropanol	0.4
<b>PHOSPHOLIPID EFA</b>	0.6
	100.0

H  
A  
I  
R

### Procedure

Add vinyl acetate/crotonates copolymer to alcohol slowly with adequate agitation; mix until well dispersed. Add amino-methylpropanol to neutralize, and mix until dissolved. Add remaining ingredients, color and fragrance.  
Package.

C  
A  
R  
E

### Typical Properties

Appearance	Clear liquid
pH	7.1

# INCI GLOSSARY

**ACRYLATES COPOLYMER** Balance 0/55 (National Starch and Chemical Co.)

**ALLANTOIN** Allantoin

**AMP** Aminomethylpropanol (Angus Chemical Co.)

**ARLACEL P135** PEG-30 Dipolyhydroxystearate

**ARLACEL 165** Glyceryl Stearate (and) PEG-100 Stearate

**ARLAMOL E** PPG-15 Stearyl Ether

**ARLAMOL HD** Isohexadecane

**ARLAMOL ISML** Isosorbide Laurate

**ARLASOLVE 200 LIQUID/GEL** Isoceteth-20

**ARLATONE 2121** Sorbitan stearate (and) sucrose cocoate

**ARLATONE 983S** PEG 5 Glycerol Stearate

**ARLATONE 985** Ethoxylated Stearyl Stearate

**ARLATONE DUO** Proprietary Composition

**ARLATONE MAP 160** Cetyl Phosphate\*

**ARLATONE MAP 180** Stearyl Phosphate\*

**ARLATONE MAP 230K-40** Potassium C12-13 Monoalkyl Phosphate\*

**ARLATONE MAP 230T-60** Triethanolamine C12-13 Monoalkyl Phosphate\*

**ARLATONE MAP 950** Potassium C9-15 Alkyl Phosphate

**ATLAS 1500** Glyceryl Stearate

**ATLAS G-2330** Sorbeth-30

**BALANCE 0/55** Acrylates Copolymer

**BRIJ 72** Steareth-2

**BRIJ 721** Steareth-21

**BRIJ 721S** Steareth-21

**BRIJ 76** Steareth-10

**BRIJ 78** Steareth-20

**BRIJ 93** Oleth 2

**DME** Dimethylether (DuPont)

**ESTOL 1474** Glyceryl Stearate

**ESTOL 1514** Isopropyl Myristate

**ESTOL 1517** Isopropyl Palmitate

**ESTOL 1543** Octyl Palmitate

**ESTOL 1545** Octyl Stearate

**ESTOL 3603** Glycerol Tricaprylate/Caprate

**ESTOL 3609** Trioctanoin

**ESTOL 3737** Propylene Glycol Stearate

**ESTOL 3750** Glycol Distearate

**FORESTALL** Soyaethyl Morpholineum Ethosulfate

**MONALAC MAB** Milkamidopropyl Betaine

**MONALAC ML** Milk Lipid

**MONALAC MO** Milkamidopropyl Amine Oxide

**MONALAC MPL** Sodium Milkamidopropyl Dimonium Hydroxypropyl Phosphate Chloride

**MONAMATE LNT-40** Ammonium Lauryl Sulfosuccinate

I  
N

C

N

A

M

E

S

# INCI GLOSSARY (continued)

- M** MONAMATE RMEA-40 Disodium Ricinoleamido MEA-Sulfosuccinate  
MONAMID 716 Lauramide DEA  
MONAMID CMA/M Cocamide MEA  
MONAQUAT SL-5 Dihydroxypropyl PEG-5 Linoleammonium Chloride  
**I** MONASIL PCA PCA Dimethicone  
MONASIL PLN Linoleamidopropyl PG-Dimonium Chloride Phosphate Dimethicone  
**N** MONATERGE 1164 SLS & Disodium Lauryl Sulfosuccinate  
MONATERGE 779 Cocamide DEA and DEA Laureth Sulfate  
MONATERIC 949-J Disodium Lauroamphodiacetate  
**C** MONATERIC CAB-LC Cocamidopropyl Betaine  
MONATERIC CLV Disodium Cocoamphodiacetate  
**I** MONAWET MO-70R Dioctyl Sodium Sulfosuccinate  
MONAWET MO-84R2W Dioctyl Sodium Sulfosuccinate  
NEODOL 25-3A Ammonium C12-15 Pareth Sulfate (Shell Chemical Co.)  
OZOKERITE SP 1020P Ozokerite (Strahl & Pitsch, Inc.)  
PHOSPHOLIPID CDM Coco PG-Dimonium Chloride Phosphate  
PHOSPHOLIPID EFA Linoleamidopropyl PG-Dimonium Chloride Phosphate  
**N** PHOSPHOLIPID GLA Sodium Borageamidopropyl PG-Dimonium Chloride Phosphate  
**A** PHOSPHOLIPID PTC Cocamidopropyl PG-Dimonium Chloride Phosphate  
PHOSPHOLIPID SV Stearamidopropyl PG-Dimonium Chloride Phosphate & Cetyl Alcohol  
**M** PRICERINE 9088 Glycerin  
PRIPURE 3786 Diisopropyl Dimer Dilinoleate  
PRISORINE 2039 Isostearyl Isostearate  
**E** PRISTERINE® 4905 Stearic Acid  
RENEX PEG 1500FL Carbowax 1540  
**S** RESYN® 28-2930 VA/Crotonates/Vinyl, Neodecanoate copolymer (National Starch & Chemical)  
SPAN 40 Sorbitan Palmitate  
SPAN 60 Sorbitan Stearate  
SPECTRAVEIL AQ Zinc Oxide, Water, Silica, PEG-2M, preserved with Nipagin M Sodium  
TIOVEIL AQ-G Water, Titanium Dioxide, Alumina, Silica, Sodium Polyacrylate, preserved with Germaben II  
TIOVEIL 50 FIN C12-15 Alkyl Benzoate, Titanium Dioxide, Polyhydroxystearic Acid, Aluminum Stearate, Alumina  
TIOVEIL 50 MOTG Titanium dioxide, Mineral oil, Caprylic/Capric Tryglyceride, Alumina, Polyhydroxystearic acid, Silica  
TWEEN 20 Polysorbate 20

\*Proposed INCI Name

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